



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/591,949

09/08/2006

Yuuichi Ashibe

017700-0188

8079

23392 7590 08/11/2009

FOLEY & LARDNER  
555 South Flower Street  
SUITE 3500  
LOS ANGELES, CA 90071-2411

EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

08/11/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,949	<b>Applicant(s)</b> ASHIBE ET AL.	
	<b>Examiner</b> KALLAMBELLA VIJAYAKUMAR	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/08/2006;10/23/2008</u> .                                   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

- This is a 371 of PCT/JP05/02202 filed 02/15/2005.
- Claims 1-2 are currently pending with the application.
- The examiner has considered the IDS filed 09/08/2006 and 10/23/2008.

***Claim Rejections - 35 USC § 102***

***Claim Rejections - 35 USC § 103***

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious Ashibe et al (JP 2002-238144, IDS).

Ashibe et al teach a terminal structure of a cryogenic apparatus wherein the a superconducting cable was drawn out of a cryogenic part into room-temperature via a bushing (60). A vacuum heat-insulating part was provided between the flanges in cryogenic part (62) and in the room temperature part (63) on the outer circumference of the bushing that seals the room temperature part (leakage prevention member) (Abstract; Fig-1). The terminal contained a refrigerant bath tank (10), a bushing (60), a liquid refrigerant (11) and gaseous refrigerant above the liquid. The bushing was perpendicular to the superconducting cable and the termination of the superconducting cable passes through the bushing (Fig1,3). The refrigerant pressure in the inner layer part was made isotonic with the cryogenic/very-low temperature part (P-0017) whereby the pressures are counterbalanced with out the aid of a pressurizer (P-0017-0018) and

Art Unit: 1793

controls the leak of the refrigerant from the tub (P-0071). The prior art further teaches minimizing the gap between the inner layer and the outer layer of the bath/tank (P-0016). The spacing between the inner wall of the tub/bath (10) and the bushing (60) in the prior art terminal structure inherently meets the limitation dimensioning the distance between the outer periphery of the bushing and the inner surface of the bath in the instant claims. All the limitations of the instant claims are met.

The reference is anticipatory.

In the alternative that the disclosure by Ashibe et al be insufficient to anticipate the instant claims, the instant claimed structure nonetheless would have been obvious to a person of ordinary skilled in the art over the disclosure because the reference teaches each of the claimed ingredients within the structure. The burden is upon the applicant to prove otherwise. In re Fitzgerald, 619 F.2d 67, 205 USPQ594 (CCPA 1980). [MPEP 2112 [R-3-V].

2. Claims 1-2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious Ashibe et al (WO 02/065605 as evidenced by US 6,888,060).

Ashibe et al teach a terminal structure of cryogenic equipment for leading a terminal of cryogenic equipment 100 from a very low temperature portion to a room temperature portion through a bushing, having a feature in that a connecting/heat-insulating portion 300 adiabatically connected with the aforementioned very low temperature portion 200 and the aforementioned room temperature portion 400 is provided along the outer circumference of the aforementioned bushing 30 between the aforementioned very low temperature portion 200 and the aforementioned room temperature portion 400 (Abstract; Fig 1-3 and 6). The spacing between

Art Unit: 1793

the inner wall of the bath (10) and the outer periphery of the bushing (30) in the adiabatic system inherently counterbalances the pressures without the aid of a pressurizer (Cl-4, Ln 30-34; Cl-7, Ln 1-20; Cl-9, Ln 54-61). The spacing between the inner wall of the tub/bath (10) and the bushing (60) in the prior art terminal structure inherently meets the limitation dimensioning the distance between the outer periphery of the bushing and the inner surface of the bath in the instant claims. The space inside the bushing was sealed off preventing the leakage of refrigerant which meets the limitation of a leakage prevention member in the claims (Cl-3, Ln 1-19; Cl-8, Ln 35-48). All the limitations of the instant claims are met.

The reference is anticipatory.

In the alternative that the disclosure by Ashibe et al be insufficient to anticipate the instant claims, the instant claimed structure nonetheless would have been obvious to a person of ordinary skilled in the art over the disclosure because the reference teaches each of the claimed ingredients within the structure. The burden is upon the applicant to prove otherwise. In re Fitzgerald, 619 F.2d 67, 205 USPQ594 (CCPA 1980). [MPEP 2112 [R-3-V].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KALLAMBELLA VIJAYAKUMAR whose telephone number is (571)272-1324. The examiner can normally be reached on M-F 07-3.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 5712721358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/

Aug 01, 2009.

/Stanley Silverman/

Supervisory Patent Examiner, Art Unit 1793